

IEEE NPEC Subcommittee SC-3
Operations, Maintenance, Aging, Testing, & Reliability
Meeting 17-2 Minutes



Tuesday Morning, July 18, 2017
Buffalo, NY

Members Present: George Ballassi
Tom Crawford* (Vice Chair)
Jim Liming
Ed Mohtashemi
Ngola Otto

Rebecca Steinman (Secretary)
Phil Ward
Yvonne Williams (Chair)
Kiang Zee

Members Absent: Gopal Aravapalli (C)
John Beatty
Suresh Channarasappa
John Erinc
Edward Eustace (C)
Hamid Heidarisaafa (C)
Sharon Honecker (C)
Steve Hutchins (C)

Jacob Kulangara
Kirk Melson
Joe Napper (C)
James Parello (C)
Clint Pierce
Ted Riccio
John Stevens
John Taylor (C)

Guests: None

* Joined the meeting via the web-based Join Me interface.

1.0 Introduction

- **Opening Remarks and Meeting Agenda**

Yvonne Williams called the meeting to order at about 08:12 then reviewed the agenda. George Ballassi moved to approve the agenda, Ed Mohtashemi seconded, and the agenda was approved. See Attachment 1 for the approved agenda.

2.0 Secretary's Report

- **SC-3 Approval of S17-1 Meeting Minutes**

Tom Crawford sent the draft meeting minutes to the membership via email prior to the meeting. It was noted that the spreadsheet capturing Ted Riccio's review of the integration of 1819 with other NPEC standards had not been included in the draft minutes. Rebecca Steinman reviewed the revised meeting notes for the S17-1 meeting in New Orleans. Jim Liming moved to approve the corrected minutes and Ed Mohtashemi seconded. The minutes were approved as amended.

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- **Action Item Status**

The status of the action items was reviewed; the updated action item list is provided in Attachment 4.

- **SC-3 Membership**

Rebecca noted that there were 9 members in attendance; we have 17 members total at present; therefore, quorum was met for conducting business at the meeting. Yvonne Williams noted that Ngola Otto is eligible for SC-3 membership. Ngola agreed to step into the roles vacated by Sheila Ray as the NRC representative on SC-3, WG 3.1, WG 3.3 and WG 3.4. Ngola was unanimously confirmed as a new member. The Rolling Attendance report is contained in Attachment 2. The current membership roster will be distributed separately.

- **Alligator Fund**

The status of the alligator fund was reviewed and it was noted that the fund balance has not changed since the last meeting. We paid to mail the projector for this meeting (\$51.08), and that will be deducted as an expense of this meeting. We agreed, once again, that there would be no collection for this meeting. The Alligator Fund status is contained in Attachment 3.

3.0 Chair's Report

- **Leadership Review / Membership**

The current officers are: Yvonne Williams, Chair; Tom Crawford, Vice Chair; and Rebecca Steinman, Secretary. It was noted that new people need to step into the leadership roles and that each committee member needs to push hard to bring in at least one potential new member.

- **Leadership Telecons**

There were no Leadership telecons since the previous meeting.

- **NPEC Preparations**

There are no preview or work-in-progress activities associated with SC-3 this meeting. The NPEC presentation for 1819 interactions with other NPEC standards was postponed to the 18-1 meeting. George Ballassi previously agreed to create and give presentation. We are tracking this as an update of Action Item 17-1-A in Attachment 4.

4.0 IEEE Patent Slides

Yvonne discussed the IEEE Patent Slides, which are contained in Attachment 9.

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5.0 Working Group Reports

- **WG-3.1**

The WG met Monday. The ballot comments from Std 338 were reviewed and only one item was determined to be something to carry forward to the next revision. The WG will prepare a presentation to NPEC for the N18-1 meeting to discuss the integration of 1819 into other NPEC standards.

- **WG-3.2**

WG-3.2 is dormant at present. Yvonne contacted Randy Flowers about reconstituting the WG, but received no response. She will attempt to contact him again. IEEE 692 expires in 2023. Rebecca indicated IEEE should be able to provide the editable Word file for the currently published version of the standard.

- **WG-3.3**

The WG met Monday. Vice Chair position is currently vacant. Clint Pierce accepted the role of vice-chair and secretary starting at the 17-1 meeting and will eventually progress to the Vice-Chair. Other logistical aspects of the next revision of the standard were discussed, but no specific decisions were made. WG needs to recruit new members.

- **WG-3.4**

WG 3.4 is also dormant. IEEE 1205 was last issued in 2014. Rebecca continues as Chair. IEEE 1205 expires in 2024. The WG is to be reconstituted in 2020.

6.0 Liaison Reports

Liaison reports were provided as follows:

- NRC – The current report was submitted by Ngola Otto and is contained in Attachment 7.
- ASME – The current report was submitted by Craig Sellers and is contained in Attachment 6.
- NRMCC – Jim Liming reported at the 17-1 meeting that NRMCC has been disbanded. Kiang Zee became aware of a presentation that occurred in Charlotte in June 2017, which summarizes the replacement group SCoRA under JCNRM (Attachment 10). Kiang will reach out to SCoRA organizers to set himself up as the IEEE point of contact for the group, since the JCNRM did not notify him regarding the June meeting.

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7.0 Old Business

The SC-3 OPM has been approved by Yvonne and is available on the SC-3 web site under the Resources tab.

Yvonne reviewed the SC-3 Master Schedule and NPEC SC-3 Standards Schedule. Copies of the updated schedules are provided in Attachments 8 & 5, respectively.

8.0 New Business

Yvonne revived the proposed changes to the SC-3 name and scope in the NPEC P&P Manual. George Ballassi moved to approve the changes as distributed by email on 3/29/17, Jim Liming seconded, and the changes were approved. Yvonne will notify AdCom to proceed with transmittal to the PES Technical Council for approval.

NPEC chair has asked SC chairs to provide feedback regarding the addition of a 2-hour training to the NPEC schedule. SC-3 discussed and determined that it would be nearly impossible to choose subjects relevant to a majority of NPEC and those technical topics of relevance could be more appropriately addressed in the SC meetings. SC-3 will also recommend to AdCom that the technical presentations notably missing from the N17-2 agenda should be reinstated.

The ballot comments for 338 were reviewed for items that need to be addressed in the next revision. There was only one comment that needed to be carried over.

Current Wording: This standard amplifies the periodic testing requirements of other *nuclear safety-related IEEE standards*.

Suggested Revision: This standard amplifies the periodic testing requirements for nuclear safety-related *SSC described in other IEEE standards*.

An additional discussion on the topics is to be included in the 1819 presentation to NPEC; George Ballassi has sufficient input to prepare the presentation for review by SC-3 prior to presentation at NPEC. Rebecca Steinman suggested that Ted Ricco's review spreadsheet be sent to the other SCs so that the WG chairs could consider the input during their next revision cycle.

9.0 Action Items

Yvonne & Rebecca reviewed the new action items from this meeting. The revised AI List is provided in Attachment 4.

A motion for adjournment was made by Kiang Zee, seconded by Phil Ward, and passed by acclamation of the remaining members at 1432.

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Prepared by Rebecca Steinman, SC-3 Secretary.

SC-3 Website information:

<http://sites.ieee.org/npec-sc3/>

To access members only content on the SC-3 web page:

1. Click the members only link you are interested in.
2. Login using your IEEE user ID and password.
3. Then when prompted for a second password, enter [REDACTED]

NPEC Standards Website information:

<http://sites.ieee.org/pes-npec/>

Login Name: [REDACTED]

Password: [REDACTED]

ATTACHMENTS

Attachment 1 Agenda	Attachment 2 Rolling Attendance	Attachment 3 Alligator Fund
Attachment 4 Action Items	Attachment 5 NPEC SC-3 Standards Status Spreadsheet (17-01 version)	Attachment 6 ASME Liaison Report
Attachment 7 NRC Liaison Report	Attachment 8 SC-3 Standards Schedule	Attachment 9 IEEE Patent Slides
Attachment 10 JCNRM SCoRA Presentation		

Agenda – Meeting 17-02 – Buffalo, NY

NPEC Subcommittee SC-3, Operations, Maintenance, Aging, Testing, and Reliability

Meeting Date/Time:	Tuesday, 07/18/2017 0800-1200	Chairman :	Yvonne Williams
		Vice Chair:	Tom Crawford
		Secretary:	Rebecca Steinman

Desired Outcomes:	<ol style="list-style-type: none"> 1. Review status/activities of each SC Working Group 2. Review status of membership and officers succession 3. Update SC3 standards master schedule
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WHAT	WHO	WHEN
Welcome, Review Desired Outcomes <ul style="list-style-type: none"> • Meeting logistics • Introductions 	Y. Williams All	0800-0810
Chairman's Introduction <ul style="list-style-type: none"> • Opening remarks • Review/approve agenda 	Y. Williams	0810-0820
Secretary's Report <ul style="list-style-type: none"> • Approval of SC3 17-1 Meeting Minutes • Action Item review/status • SC3 membership review – Ngola Otto • Alligator fund report 	Y. Williams / R. Steinman	0820-0845
Chairman's Report <ul style="list-style-type: none"> • SC3 Leadership – Officers and succession planning • Leadership telecons – none held • NPEC meeting preparations – no presentations by SC-3 or its WGs for 17-2 meeting • SC3 website updates – Rebecca Steinman is webmaster, take a look 	Y. Williams	0845-0900
NPEC report – agenda for Wednesday meeting	Y. Williams	0900-0905
Patent slides	Y. Williams	0905-0910
BREAK	All	0910-0930
Working Group Reports <ul style="list-style-type: none"> • WG-3.1 (Testing) – 336 expires in 2020, 338 in 2022, 1819 in 2026 • WG-3.2 (Security) – 692 expires in 2023 • WG-3.3 (Reliability) – 577 expires in 2022, 933 in 2023, 352 in 2026 • WG-3.4 (Aging) – 1205 expires in 2024 	Y. Williams none Y. Williams none	0930-0940 0940-0950
Liaison Reports <ul style="list-style-type: none"> • NRC Report • ASME Report • JCNRM Report 	N. Otto C. Sellers G. Ballassi/ J.Liming	0950-1005 1005-1015 1015-1025
Old Business <ul style="list-style-type: none"> • SC-3 O&Ps – approved and signed • Master schedule for Std review/updates 	Y. Williams	1025 -1035
New Business/Rumor Mill/Drumbeats <ul style="list-style-type: none"> • Name and scope for SC-3 – confirm approval by SC, not sure when on changes • AdCom action – training proposal – what do we need? Want? When? • Presentation development continued - 1819 approach with other standards / presentation for NPEC at 18-01 	Y. Williams All	1035-1050
Review of Action Items	R. Steinman	1050-1055
Next meeting more details at NPEC?, but in New Orleans again, January 2018	Y. Williams	
Meeting closeout/adjournment		1105

Attachment 2

NPEC Subcommittee SC-3
Operations, Maintenance, Aging, Testing, and Reliability
Attendance

Last	First	2015-2	2016-1	2016-2	2017-1	2017-2
Aravapalli	Gopal					
Ballassi	George	X		X	X	X
Beatty	John	X	X	X		
Channarasappa	Suresh		X	P - J. Erinc	X	
Crawford	Tom	X	X	X	X	T
Cuvelier	Marie	Correspond			Dropped	
Erinc	John			X		
Eustace	Edward				Correspond	
Heidarisaifa	Hamid					
Honecker	Sharon					
Hutchins	Steve		Correspond			
Kulangara	Jacob	X	X			
Liming	Jim	X	X	X	X	X
Melson	Kirk	X	X			
Muhtashemi	Ed	X			X	X
Napper	Joe	Correspond				
Otto	Ngola			X		Appointed
Parello	Jim					
Patel	Vish	X		Correspond	Dropped	
Pierce	Clint			X	Appointed	
Ray	Sheila			Correspond		
Riccio	Ted	X	X	X	X	
Steinman	Rebecca		X	T		X
Stevens	John		X	X	X	
Taylor	John					
Ward	Phil			X	Appointed	X
Williams	Yvonne	X		X	X	X
Zee	Kiang	X	X	X	X	X

Members are shown in **bold** and colored yellow as of end of most recent meeting.
 Corresponding and Alternate members are shown in green.

TOTAL PAYING ATTENDEES	11	10	12	11	8
TOTAL NON-PAYING ATTENDEES	0	0	0	0	0
TOTAL TELECON PARTICIPANTS			1	0	1
TOTAL ATTENDEES	11	10	13	11	9

Attachment 3

NPEC Subcommittee SC-3

Operations, Maintenance, Aging, Testing, and Reliability

Alligator Fund

The Alligator Fund is made up of voluntary contributions from SC-3 members to defray the cost of meeting rooms, refreshments, etc.

Meeting	Beginning Balance	Meeting Contributions	Expenses	Ending Balance
S05-1	\$312.14	\$207.18	\$359.82	\$159.50
S05-2	\$159.50	\$240.00	\$0.00	\$399.50
S06-1	\$399.50	\$220.00	\$178.67	\$440.83
S06-2	\$440.83	\$160.00	\$335.00	\$265.83
S07-1	\$265.83	\$200.00	\$201.70	\$264.13
S07-2	\$264.13	\$600.00	\$340.87	\$523.26
S08-1	\$523.26	\$300.00	\$347.80	\$475.46
S08-2	\$475.46	\$320.00	\$386.26	\$409.20
S09-1	\$409.20	\$180.00	\$12.00	\$577.20
S09-2	\$577.20	\$210.00	\$92.54	\$694.66
S10-1	\$694.66	\$220.00	\$380.90	\$533.76
S10-2	\$533.76	\$425.00	\$474.90	\$483.86
S11-1	\$483.86	\$200.00	\$14.00	\$669.86
S11-2	\$669.86	\$430.00	\$480.50	\$619.36
S12-1	\$619.36	\$340.00	\$203.00	\$756.36
S12-2	\$756.36	\$150.00	\$0.00	\$906.36
S13-1	\$906.36	\$0.00	\$0.00	\$906.36
S13-2	\$906.36	\$0.00	\$0.00	\$906.36
S14-1	\$906.36	\$0.00	\$0.00	\$906.36
S14-2	\$906.36	\$0.00	\$0.00	\$906.36
S15-1	\$906.36	\$0.00	\$0.00	\$906.36
S15-2	\$906.36	\$0.00	\$0.00	\$906.36
S16-1	\$906.36	\$0.00	\$0.00	\$906.36
S16-2	\$906.36	\$0.00	\$0.00	\$906.36
S17-1	\$906.36	\$0.00	\$65.19	\$841.17
S17-2	\$841.17	\$0.00	\$51.08	\$790.09

Attachment 4

NPEC Subcommittee SC-3
Operations, Maintenance, Aging, Testing, and Reliability

Action Items List

Item No.	Subcommittee 3.0 Actions	Owner	Due Date	Closure Comments
12-2-B	Develop a Template / Strawman for gap analysis for SC3 standards	Yvonne	13-2 mtg.	No follow-on as of S17-2 meeting. Jim Liming offered to help Yvonne. Consider dropping if no action by 18-1 mtg.
14-1-B	Present the conflict to SA for resolution relative to meeting notice distribution in section 6.0 of the IEEE SA Working Group Policies & Procedures manual template.	Malia	17-2 mtg.	Action pending. During the S16-1 meeting, Malia reported that SA is developing a new Template, and we should wait and see if that resolves the issue. S17-2: Follow-up with Malia as to whether the revision addressed the concern.
15-2-A	Review the CD of files from WG-3.2 for unresolved comments and also contact Randy Flowers concerning WG-3.2 plans.	Yvonne	16-1 mtg.	Yvonne contacted Randy in Spring 2017; no response. Will try again and then reach out to other WG members.
17-1-A	Presentation to NPEC on coordination/integration of risk-informed standard 1819 with the other NPEC standards	Yvonne / George	17-2 mtg.	Yvonne contacted ADCOM to recommend that SC-3 make a presentation to NPEC on the history, status, and future integration of P-1819 with other NPEC standards [Complete]. George Ballassi to develop the presentation and present to NPEC [Scheduled for N18-1 meeting].
17-2-A	Investigate IEEE service/resource for storing important SC-3 and WG documents.	Rebecca	18-1 mtg.	
17-2-B	Submit at least one topic to the SC-3 chair that you as a SC member would like to see presented as a 1-hr SC-3 training/technical session at a future mtg.	All Members	11/30/17	

SC-3 "Operations, Maintenance, Aging, Testing & Reliability"

Chair: Yvonne Williams

PROJECT	Year	Standard Expiration	Re-Affirmation	PAR Expiration	TITLE	Sub-Committee	Regulatory Guide	IEEE Revision Section B Discussion	IEEE Revision Section C Guidance	Working Group	Chair	Cycle Year	N16-1	N16-2	N17-1	N17-2	N18-1	N18-2	Status/Comments
336	2010	2020		Dec-2020	IEEE Standard Installation, Inspection, and Testing Requirements for Power, Instrumentation, and Control Equipment at Nuclear Facilities	3	1.30 - 1972	1971	1971	1	Y. Williams	7							Published on 30 Sept 2010 PAR approved by ADCOM at 16-02 and submitted to RevCom. PAR approved by SB 9/22/16
338	2012	2022			IEEE Standard Criteria for the Periodic Surveillance Testing of Nuclear Power Generating Station Safety Systems	3	1.118 - 1995	1987	1987	1	Y. Williams	5							Std approved by SB Feb. 6, 2012 Published on 23 March 2012
352	2016	2020			IEEE Guide for General Principles of Reliability Analysis of Nuclear Power Generating Stations and Other Nuclear Facilities	3				3	J. Stevens	1	Preview						Resolving initial ballot comments. May need PAR extension by October 17, 2016 Standard revision approved by SB Dec. 7, 2016 Have not received edit proofs yet.
577	2012	2022			IEEE Standard Requirements for Reliability Analysis in the Design and Operation of Safety Systems for Nuclear Power Generating Stations	3				3	J. Stevens	5							Approved by SASB Aug. 30, 2012 Published on Oct. 19, 2012
692	2013	2023			IEEE Standard Criteria for Security Systems for Nuclear Power Generating Stations	3				2	R. Flowers	4							Issued by Sd bd Aug. 2013. Published on 30 Sept 2013 PAR 692A was issued in 2011 to amend the standard. Were these corrections included in the 2013 issuance? If so the PAR needs to be withdrawn. I'm not seeing that any PAR on 692 is still active, so not sure what needs doing. Initial thought was to amend, but it was evaluated to need revision instead. Based on what Dave Horvath said for its history back then, so yes, I would say the revision subsumed the amendment issues
933	2013	2023			IEEE Guide for Definition of Reliability Program Plans for Nuclear Generating Stations and Other Nuclear Facilities	3				3	J. Stevens	4							Approved by SA BD on Dec. 11, 2013 Published 10 Jan 2014
1205	2014	2024			IEEE Guide for Assessing, Monitoring, and Mitigating Aging Effects on Class 1E Equipment used in Nuclear Power Generating Stations	3	1.218 - 2012	2000	None	4	R. Steinman	3							Approved by SB March 27, 2014 Published 16 May 2014
1819	2016	2026			Standard for Risk-Informed Categorization and Treatment of Electrical Equipment in Nuclear Facilities	3				1	Y. Williams	1							PAR approved by SB 3/29/2012 Approved for ballot at NPEC 15-1. Submitted for Revcom and on Sept. 2016 agenda Standard revision approved by SB Sept. 2016 Received 1st edit proofs 1/31/17

Attachment 6

ASME Liaison Report
July 2017

OM Code, Subsection ISTE, "Risk-Informed Inservice Testing" Revision 3 was submitted for second consideration ballot in March 2016. It received a single negative based on a missing "-" in the title. This has been corrected but the ballot has stalled due to ASME staff turn-over.

The first version of the non-mandatory appendix addressing RG 1.175 guidelines was balloted. The ballot received many negatives and comments. SC-Risk Informed Activities will be addressing these comments during the July 2017 meeting

Craig Sellers
Chair OM Subcommittee Risk-Informed Activities

NPEC Subcommittee SC-3
Operations, Maintenance, Aging, Testing, and Reliability
SC-3 Standards Schedule

	WG 3.1	WG 3.2	WG 3.3	WG 3.4
2014-1	1819		352	1205
2014-2	1819		352	
2015-1	1819		352	
2015-2	1819		352	
2016-1	1819		352	
2016-2	1819		352	
2017-1	336		352	
2017-2	336		577	
2018-1	336		577	
2018-2	336		577	
2019-1	336		577	
2019-2	338		577	
2020-1	338	692	933	
2020-2	338	692	933	
2021-1	338	692	933	1205
2021-2	338	692	933	1205
2022-1	338	692	933	1205
2022-2	338	692		1205
2023-1	1819	692		1205
2023-2	1819		352	
2024-1	1819		352	
2024-2	1819		352	
2025-1	1819		352	
2025-2	1819		352	
2026-1	1819		352	
2026-2				

STD	Issued	Expires	Age as of: 07/13/2017	Time left (yrs)
336	09/30/2010	09/30/2020	6.8	3.2
338	03/23/2012	03/23/2022	5.3	4.7
352	12/07/2016	12/07/2026	0.6	9.4
577	10/19/2012	10/19/2022	4.7	5.3
692	09/30/2013	09/30/2023	3.8	6.2
933	01/10/2014	01/10/2024	3.5	6.5
1205	05/16/2014	05/16/2024	3.2	6.8
1819	09/22/2016	09/22/2026	0.8	9.2

Balloting
and
Approval

Includes:

- 1 Preview, ballot pool, ballot, receive comments
- 2 Resolve comments, recirc
- 3 Submit to/ revcom approval/publish

Instructions for the WG Chair

The IEEE-SA strongly recommends that at each WG meeting the chair or a designee:

- **Show slides #1 through #4 of this presentation**
- **Advise the WG attendees that:**
 - The IEEE's patent policy is described in Clause 6 of the *IEEE-SA Standards Board Bylaws*;
 - Early identification of patent claims which may be essential for the use of standards under development is strongly encouraged;
 - There may be Essential Patent Claims of which the IEEE is not aware. Additionally, neither the IEEE, the WG, nor the WG chair can ensure the accuracy or completeness of any assurance or whether any such assurance is, in fact, of a Patent Claim that is essential for the use of the standard under development.
- **Instruct the WG Secretary to record in the minutes of the relevant WG meeting:**
 - That the foregoing information was provided and that slides 1 through 4 (and this slide 0, if applicable) were shown;
 - That the chair or designee provided an opportunity for participants to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) of which the participant is personally aware and that may be essential for the use of that standard
 - Any responses that were given, specifically the patent claim(s)/patent application claim(s) and/or the holder of the patent claim(s)/patent application claim(s) that were identified (if any) and by whom.
- The WG Chair shall ensure that a request is made to any identified holders of potential essential patent claim(s) to complete and submit a Letter of Assurance.
- It is recommended that the WG chair review the guidance in *IEEE-SA Standards Board Operations Manual* 6.3.5 and in FAQs 12 and 12a on inclusion of potential Essential Patent Claims by incorporation or by reference.

Note: **WG** includes Working Groups, Task Groups, and other standards-developing committees with a PAR approved by the IEEE-SA Standards Board.



Participants, Patents, and Duty to Inform

All participants in this meeting have certain obligations under the IEEE-SA Patent Policy.

- **Participants [Note: Quoted text excerpted from IEEE-SA Standards Board Bylaws subclause 6.2]:**
 - **“Shall inform the IEEE (or cause the IEEE to be informed)” of the identity of each “holder of any potential Essential Patent Claims of which they are personally aware” if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents**
 - **“Personal awareness” means that the participant “is personally aware that the holder may have a potential Essential Patent Claim,” even if the participant is not personally aware of the specific patents or patent claims**
 - **“Should inform the IEEE (or cause the IEEE to be informed)” of the identity of “any other holders of such potential Essential Patent Claims” (that is, third parties that are not affiliated with the participant, with the participant’s employer, or with anyone else that the participant is from or otherwise represents)**
- **The above does not apply if the patent claim is already the subject of an Accepted Letter of Assurance that applies to the proposed standard(s) under consideration by this group**
- **Early identification of holders of potential Essential Patent Claims is strongly encouraged**
- **No duty to perform a patent search**

Patent Related Links

All participants should be familiar with their obligations under the IEEE-SA Policies & Procedures for standards development.

Patent Policy is stated in these sources:

IEEE-SA Standards Boards Bylaws

<http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6>

IEEE-SA Standards Board Operations Manual

<http://standards.ieee.org/develop/policies/opman/sect6.html#6.3>

Material about the patent policy is available at

<http://standards.ieee.org/about/sasb/patcom/materials.html>

If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit <http://standards.ieee.org/about/sasb/patcom/index.html>

This slide set is available at
<https://development.standards.ieee.org/myproject/Public/mytools/mob/slideset.ppt>



Call for Potentially Essential Patents

- If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance:
 - Either speak up now or
 - Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible or
 - Cause an LOA to be submitted

Other Guidelines for IEEE WG Meetings

- **All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.**
 - **Don't discuss the interpretation, validity, or essentiality of patents/patent claims.**
 - **Don't discuss specific license rates, terms, or conditions.**
 - Relative costs, including licensing costs of essential patent claims, of different technical approaches may be discussed in standards development meetings.
 - Technical considerations remain primary focus
 - **Don't discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.**
 - **Don't discuss the status or substance of ongoing or threatened litigation.**
 - **Don't be silent if inappropriate topics are discussed ... do formally object.**

See *IEEE-SA Standards Board Operations Manual*, clause 5.3.10 and “Promoting Competition and Innovation: What You Need to Know about the IEEE Standards Association's Antitrust and Competition Policy” for more details.



SCoRA

Sub-Committee on Risk Applications

Gerry W. Kindred
June 28, 2017

SCoRA

- SCoRA – Sub-Committee on Risk Applications
- SCoRA functions under the auspices of JCNRM
- JCNRM – Joint Committee (ASME & ANS) on Nuclear Risk Management
- Interfaces with ANS Standards Board
- Interfaces with ASME Board on Nuclear Codes and Standards (BNCS)



Objective of SCoRA

JCNRM drafts and maintains PRA standards, and other Standards Developing Organizations (SDOs) are “risk-informing” their standards; therefore,

- SCoRA is made available (upon request) to support those SDOs, including ANS and ASME
- The objective is to strive for consistency in the use of risk-management terminology & principles, and consistency with JCNRM’s PRA standards

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SCoRA Reviews

- Ensure consistency in terminology with JCNRM PRA standards
- Ensure consistency / acceptability in risk-informed methods
- Provide a review of draft (under-development) standards
- Identify where risk-informed processes could be applied
- Facilitate standards development from a risk management perspective

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Examples of Reviewed Standards

- ANSI/ANS 58-10, Auxiliary Feedwater System for Pressurized Water Reactors
- ANS 2.8, Probabilistic Evaluation of External Flood at Nuclear Facilities
- ASME/IST, Risk-Informed Inservice Testing
- ANSI/ANS 57.3, Design Requirements for New Fuel Storage
- NCRP SC 1-20, Biological Effectiveness of Low-Energy Photons and Electrons for Evaluating Human Cancer Risk
- ANSI/ANS 15.22, Classification of SSCs for Research Reactors

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Notes

- The greater membership of JCNRM can be drawn upon for subject matter expertise for reviews
- Reviews are not limited to quantitative risk issues as risk-informed does not necessarily mean PRA-informed
- Reviews are not limited to reactors, but are limited to nuclear
- Reviews are not limited to standards that use models with the current scope of JCNRM
- SCoRA does not write standards, JCNRM's or otherwise

PLACE THE TITLE OF THE PRESENTATION HERE | 6



Membership

- SCoRA has a diverse group of volunteers from:
 - Utilities
 - Regulatory
 - National Labs
 - Consulting Firms
 - Nuclear Vendors
 - Individuals (Retired Folks)

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How to Become a Member

- Contact a SCoRA officer
- Attend a semi-annual SCoRA meeting
- Complete ANS standards committee forms
- Complete ASME standards committee forms
- Willingness to work (Volunteer)
- Majority vote of SCoRA membership

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SCoRA Officers

- Gerry Kindred (TVA), Chairman
[REDACTED] [REDACTED]
- Gary DeMoss (PSEG), Co-Vice Chairman
[REDACTED] [REDACTED]
- Diane Jones (ENERCON), Co-Vice Chairman
[REDACTED] [REDACTED]

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